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**C-I-L Inc.
Annual Report
1981**



Energy-efficient and architecturally pleasing, C-I-L's new main administrative headquarters is pyramidal in form with functional exterior balconies. Other photos throughout the report depict features of the interior, including the large landscaped atrium and various works of art. The building sits in a park-like setting in the heart of North York, Metropolitan Toronto.

C-I-L Inc.
C-I-L House
90 Sheppard Avenue East
Willowdale, Ontario
M2N 6H2

On peut se procurer le présent rapport en français en s'adressant au Secrétaire, C-I-L Inc., P.O. Box 200, Station 'A', Willowdale, Ontario, M2N 6H2

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Consolidated Financial Highlights

	1981	1980
(Millions of dollars)		
Sales	\$ 1,149.9	\$ 1,004.2
Income from operations	111.2	100.7
Net earnings*	54.3	51.5
Cash flow from operations	102.0	92.9
Capital expenditures	94.1	70.2
At December 31		
Total investment	736.8	586.4
Common shareholders' equity	366.5	344.3
(Percent)		
Net return* on		
Sales	5	5
Average total investment	10	10
Average common shareholders' equity	13	15
(Dollars)		
Earnings* per common share		
1st quarter	\$0.93	\$0.80
2nd quarter	\$2.08	\$1.81
3rd quarter	\$0.96	\$1.08
4th quarter	\$0.72	\$0.91
Year	\$4.69	\$4.60
Dividends per common share	\$1.70	\$1.52
At December 31		
Common shares outstanding	9,794,161	9,794,161
Number of shareholders		
—Common	3,560	3,752
—Preferred	433	452

*Before extraordinary items

Waves, five free-standing sculptural forms by Canadian artist Nubuo Kubota, provided inspiration for the name of the cafeteria in C-I-L House: *Whitecaps*. Seated with Bill Mandry, (centre) chairman, and Chuck Hantho, (right) president, is John McIrvine, environmental protection manager.



C-I-L has just completed one of the most active years in its history, involving major relocation, expansions of facilities, financing and positioning for long term growth, while continuing successful day-to-day operation of its various businesses.

Despite an extremely competitive and depressed business environment, and the impact of inflation on operating costs, we achieved increases of 15% in consolidated sales, 10% in income from operations, and 6% in net earnings, over the previous year.

Consolidated sales in 1981 were \$1,150 million; income from operations was \$111 million; and net earnings before extraordinary items were \$54 million. Earnings per common share before extraordinary items were \$4.69, compared with \$4.60 in 1980. Dividends declared on common shares for the year were increased to \$1.70 from \$1.52 per share.

Rigorous control of working capital against cash flow targets for each business unit enabled the company to minimize increases in operating working capital and increase internal cash generation. Continued emphasis on improving productivity of capital, manpower and energy helped to offset cost increases and contributed to profits.

Business environment

Toward year-end, sales were affected by reduced demand in many markets as a result of the generally depressed North American business environment. Economic activity in Canada was affected by the uncertainties surrounding the protracted Constitution and energy pricing disputes. With these issues behind us, there is an urgent need to restore confidence and incentives for people and companies alike, to stimulate renewed economic growth.

Unfortunately, the tendency of the Federal Government seems to be to reduce rather than enhance incentives. This stance, combined with little real evidence of a determination to curb all but essential governmental expenditures is a matter of real concern to C-I-L as it continues to have an effect on the health of the economy.

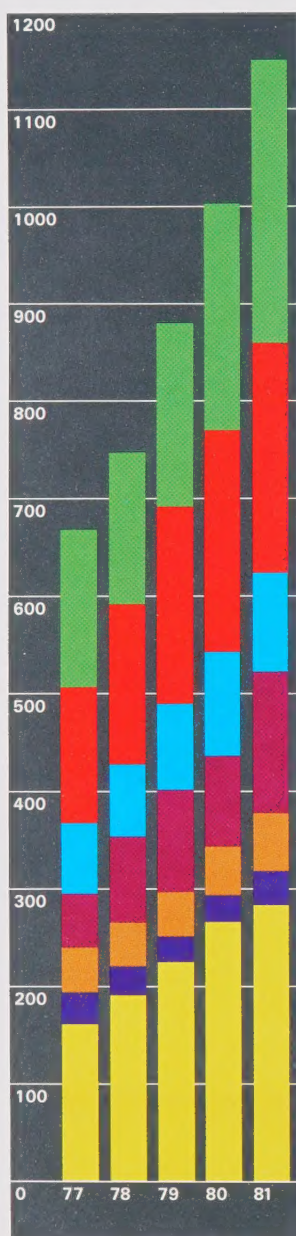
Achievements

In the 1980 report we discussed our plans and prospects for the next five years in some detail; in 1981 we pressed toward the realization of those plans.

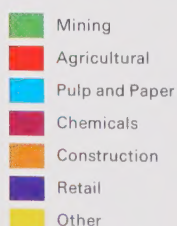
Capital expenditure projects went forward with little change. The expansion doubling capacity for production of low density polyethylene at Edmonton was completed and brought on stream ahead of schedule and well within budget.

The company opened its new research centre at Sheridan Park, Mississauga, Ontario—an important addition to the network of research facilities maintained by our various business units. Research at this location will be directed primarily in support of the chemical businesses of the company.

In December, the Board approved a major project to double capacity for the production of ammonia at Courtright, near Sarnia, Ontario. This \$217 million expansion will be completed and on stream in 1984. C-I-L has supplied fertilizer markets in Eastern Canada and the northcentral United States from Courtright since 1967. The further expansion of facilities at this site which is strategically located in the highest nitrogen fertilizer-consuming area in North America, will



Sales by industry
(millions of dollars)



consolidate the company's strong market position. The recent agreement on energy prices indicates that feedstock costs will remain favorable compared to those of competing U.S. producers; furthermore, the plant, which incorporates new process technology, will be one of the most energy-efficient in the world, offering the prospect of a 25% reduction in the rate of natural gas consumption.

Following the completion of the five-year program for oil and gas exploration entered into with Bralorne Resources Limited in 1976, the company committed new funds in 1980 to an expanded program, which includes two new participants. In 1981, expenditures amounted to over \$5 million, less than in 1980 by about \$3 million, due to the slowdown in activity prior to the agreement on energy pricing. C-I-L's share of the program is forecast at about \$33 million, and timing of expenditure plans will be reviewed annually.

In addition to these activities, the relocation and consolidation of the company's main administrative headquarters in Toronto was completed—a move that will greatly reduce the high costs of time and travel formerly incurred in administration from two main centres.

Montreal will continue to be the administrative headquarters of one of the company's largest divisions, Industrial Chemicals. In addition, the company's Eastern Region unit, which supports our operations in Quebec and the Atlantic Provinces, is headquartered in Montreal. Currently about 28% of our sales revenues are generated in this region and the Atlantic area possesses great potential for offshore development of energy resources and associated services.

When the decision was made to relocate our main administrative headquarters in Toronto, the company recognized that it would not be an easy matter for many employees to accept the personal and family disruptions associated with moving. That they did so in a spirit of cooperation and understanding without slackening their efforts towards reaching important business goals, is a source of pride and cause for appreciation.

All of our employees deserve high recognition for the fact that in spite of the unusually demanding year they achieved an outstanding record in safety performance. For a number of years the company's rate of lost-time injuries has been consistently lower than that of the chemical industry as a whole. In 1981 a downward trend was continued to a rate of 0.35 per 200,000 manhours, and we have in place procedures that will assist us in lowering this rate even further in 1982.

Plans and prospects

In looking to the future, an important element of C-I-L's strategy will be to increase our investment in those businesses which supply products and services to Canadian resource industries and particularly those which build on our advantageous hydrocarbon feedstock position. Throughout its history C-I-L has played an important double role in upgrading the country's resources—as a customer taking these raw materials to produce essential chemicals for a wide range of secondary manufacturers and also as a supplier providing chemicals and services to primary resource industries. We plan to increase our involvement in the energy sector while continuing to serve as both customer and supplier.

The company's current five-year capital expenditure program, apart from the ammonia project now underway at Courtright, is projected at \$700 million, of which at least \$400 million would be for plant expansion.

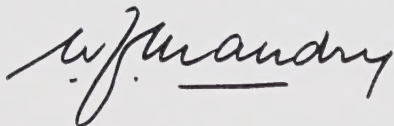
We are continuing to develop plans for a second polyethylene project at Edmonton to expand capacity by a further 100,000 tonnes per year. While the existing plant produces low density polyethylene resins, the proposed expansion would produce high and medium density resins. As some of these resins are not now produced in Canada, the company would be able to supply additional end-use markets and replace materials currently imported.

Other capital expenditure plans include a proposed doubling of urea capacity at the Courtright site by 1986, projects related to the continued aggressive expansion of our North American sulphuric acid business, additional facilities for the support of the specialized underground mining equipment business, both in Canada and overseas, and various extensive improvements to effect production efficiencies.

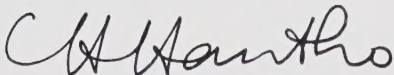
To assist in financing capital expenditures and working capital requirements, a debenture issue of \$80 million was marketed successfully early in 1981. It is expected that the company will finance its five-year program largely through internally generated funds, together with some additional external financing. The type, amount and timing will be determined by market conditions.

The slowdown experienced in the latter part of 1981 has continued into 1982 and, if it extends beyond mid-year, could result in a decline in sales and earnings compared to 1981. The current economic trend and the impact this will have on the ability of the company to generate funds does raise concerns and may delay our planned investment program. However, C-I-L has a strong base from which to increase earnings over the next several years, and we remain optimistic about our prospects beyond 1982.

On behalf of the Board,

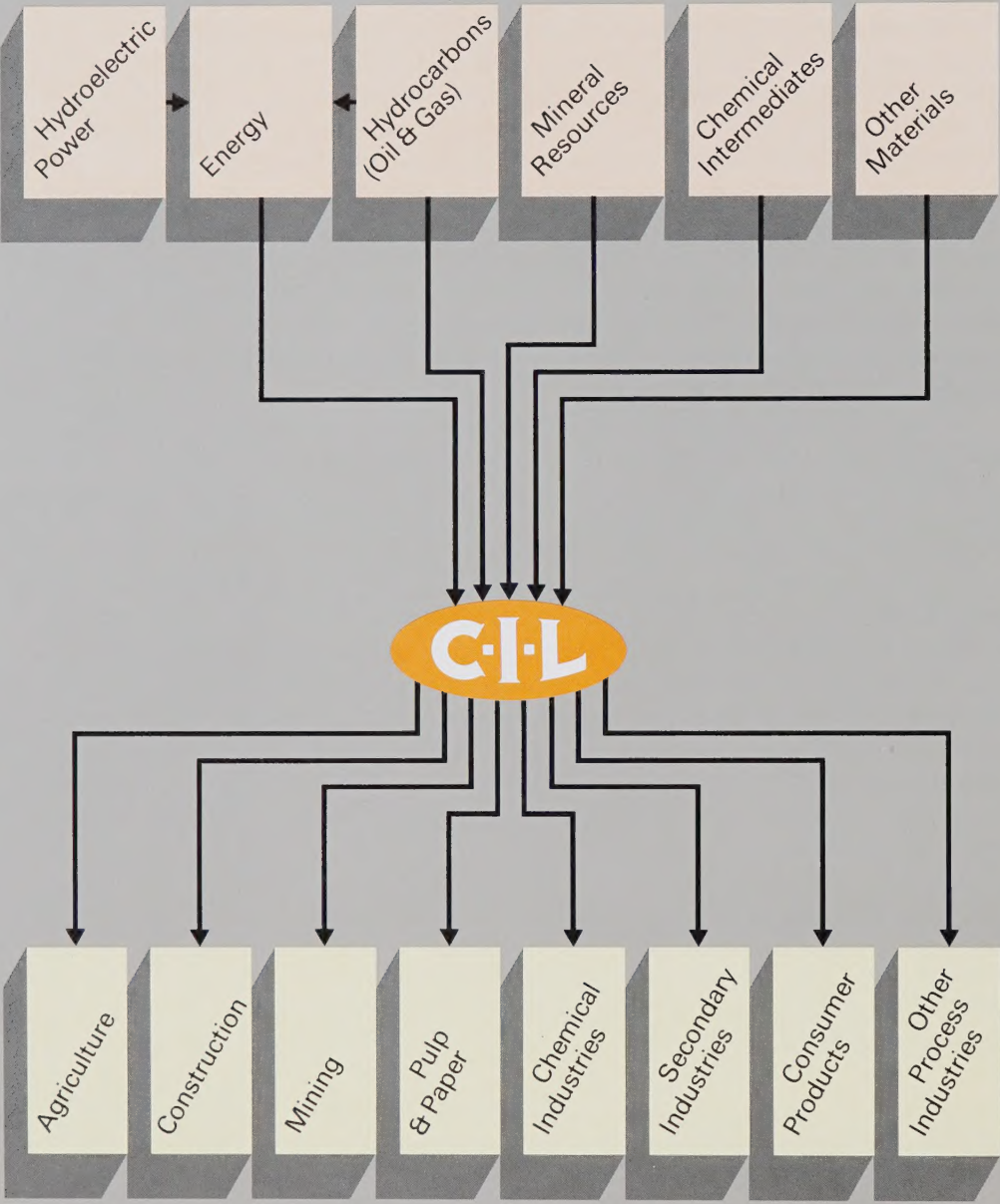


W. J. Mandry
Chairman and Chief Executive Officer



C. H. Hantho
President and Chief Operating Officer

Toronto, Ontario, April 1, 1982



In helping to upgrade Canada's wealth of natural resources, C-I-L invests capital and technical expertise to manufacture and supply chemicals and related products to a wide range of primary and secondary industries. The framework of divisions, subsidiary and associated companies through which it operates, is presented by the chart on the opposite page.

Agricultural and Industrial Chemicals

Agricultural chemicals division
ammonia, ammonium nitrate, nitrogen solutions, urea, blended fertilizers, ammonium phosphates
Industrial chemicals division
chlorine, caustic soda, chlorinated solvents, hydrochloric acid, sulphuric acid, liquid sulphur dioxide, aluminum sulphate
C-I-L Chemicals, Inc.
markets C-I-L products in the U.S.
Inland Chemicals Ltd.
sulphuric acid, alum
Canso Chemicals Limited
caustic soda, chlorine
Cornwall Chemicals Limited
sodium hydrosulphide, carbon tetrachloride, carbon bisulphide

Explosives and Mining Equipment

Explosives division
commercial explosives, blasting accessories, ammonium nitrate
Explosives Sales (1970) Limited
explosives distribution
Continental Explosives Limited
explosives distribution
West African Explosives and Chemicals Ltd., Liberia
explosives, blasting accessories
CXA Ltd.
blasting accessories, detonators, fuses
Jarvis Clark Company Limited
specialized underground mining and construction equipment, parts and service



Paints and Plastics

Plastics division

polyethylene resins and films, bags for industrial packaging and consumer products

C-I-L Paints Inc.

decorative, automotive and industrial finishes

Specialty Chemicals and Services

General chemicals division
packaged commodity and specialty chemicals

Alchem Inc.

water treatment and specialty chemicals

Hanson Inc.

electroplating and surface finishing supplies

Chipman Inc.

crop protection products, lawn and garden products

Chemetics International Co.

chemical plant, equipment, processes, design

Fromson Heat Transfer Limited

fabrication of heat exchangers

Tricil Limited

waste management and disposal, energy-from-waste facilities

Eco-Research Inc.

environmental survey and measurement services and research

C-I-L Resources business area:

oil and gas exploration, high impact pipeline welding and

Douglasdale Estates Ltd.
property development

Explosives and Mining Equipment

Sales: \$321.2 million, up 18% from 1980

Income from operations: \$52.1 million, up 44%

Principal products:

Commercial explosives, blasting accessories, ammonium nitrate

Customers: Mining, seismic, quarry and construction industries

Locations: Administrative headquarters at Toronto, manufacturing plants at Carseland (Alta.), Nobel (Ont.), Beloeil (Que.), 24 mixing plants on mining customer sites across Canada

Major raw materials:

Anhydrous ammonia, ammonium nitrate, calcium nitrate, aluminum powder

History: Founding unit of the company dating from 1862

Employees: 1,340

Explosives division

In 1981 the explosives business continued to grow with sales increasing more than 15% over 1980. A principal factor in this growth was a major increase in export sales, which offset the effect of lower sales due to reduced activity in domestic mining, construction and seismic markets. Tight control of costs, particularly for transportation, and aggressive marketing, contributed to an improved performance.

There were substantial increases in the sales of ammonium nitrate, which is produced at Carseland, Alberta. This plant is now operating at full capacity and an expansion is in the planning stage. The new capacity would take advantage of increased demand expected with the development of coal mining in northeastern British Columbia.

Demand for explosives in the mining industry was generally poor apart from coal mining in Western Canada, iron ore, asbestos, nickel and copper markets being sensitive to the current depressed state of the U.S. economy. The construction market also remained sluggish, with the exception of natural gas pipeline projects.

The division maintains one of the world's largest explosives research and development organizations, employing more than 90 persons. Recent activities include the first field installations of implosive cable connectors, field trials of bulk emulsions and an improved automated explosives booster plant.

1981 was also the first year of operation for the division's consulting services group, which markets technology for the solution of field problems through computerized blast designs and blast optimization.

Principal Products:

Specialized underground mining and construction equipment, parts and service

Customers: Mining and construction

Locations, Canada: Head office at Burlington (Ont.), manufacturing plants at Burlington, North Bay (Ont.), major warehouses at Bramalea, Sudbury (Ont.), parts and service centres across Canada

Locations outside Canada:

Offices, service centres and agents in many parts of the world

Major raw material: Steel

History: Established in 1961, now wholly-owned

Employees: 760

Jarvis Clark Company Limited

In 1981, sales of Jarvis Clark Company Limited were up 25% from the previous year. These results, while gratifying, were below expectations for this rapidly growing subsidiary, due to a slowdown in mining. The domestic market was strong in the first part of the year but softened considerably later in the year, while export sales remained strong until early 1982 before showing signs of weakening.

During 1981 Jarvis Clark began operations at its Burlington plant, acquired in 1980, and completed construction of its international parts warehouse at Bramalea, Ontario. These facilities will support continuing sales growth and improve customer service.

The company maintains an engineering staff of about 50 engaged in design development at North Bay and Burlington. In 1981, new technology was introduced which extends power service to electric trackless underground mining equipment, giving it the same flexibility as diesels.

The company expects to broaden its services to the mining industry in the near future by supplying vehicles for surface mining as well as underground mining. Plans also include setting up sales operations in the United States in 1982.

Principal products:

Explosives, blasting accessories

Customers: Mining

Location: Harbel (Liberia)

History: Established 1962, now owned 61%

Employees: 150

West African Explosives and Chemicals Ltd.

1981 sales for West African Explosives and Chemicals Ltd. were up 13% over 1980; however operating income was down 11%, reflecting weakness in the iron ore mining market where it has not been possible to establish adequate selling prices.

Export sales to neighboring countries were lower than expected, amounting to only 4% of total sales compared with 12% in 1980. The potential for export business remains high.

Principal Products:

Blasting accessories, detonators, fuses

Customers: Mining and construction

Locations: Head office at Brownsburg (Que.), manufacturing plants at Tappen (B.C.), Brownsburg

History: Established 1919, now owned 70%

Employees: 640

CXA Ltd.

Sales of CXA Ltd. were up 23% in 1981 over the previous year, with a marked increase in sales of the non-electric detonating system, 'Nonel', and exports.

An expansion of manufacturing facilities at Tappen, British Columbia, was approved in 1981 for completion mid-1982. This project will provide better service to customers in Western Canada, the fastest growing segment of the accessories market.

George Dutton, (right) manager—projects, and Bill Drummond, ammonia expansion project manager, are seen in the engineering department reception area, C-I-L House. In the background is a large ceramic wall mural by Canadian artist Angelo di Petta.



Shown above is a section of one of the models built by engineering personnel to detail plans for expansion of ammonia capacity at Courtright, Ontario.



Sales: \$392.8 million, up 8% from 1980

Income from operations: \$42 million, up 2% from 1980

Principal products:

Ammonia, ammonium nitrate, nitrogen solutions, urea, blended fertilizers, ammonium phosphates

Customers: Agricultural, industrial

Locations: Administrative headquarters at London (Ont.), nine interrelated plants at Courtright (Ont.), 59 farm service centres across eastern Canada (C-I-L Agromart)

Major raw materials:

Natural gas, phosphate rock, sulphuric acid

History: Producing fertilizers since 1910

Employees: 790

Agricultural chemicals division

The division's sales for 1981 were close to the same level as the previous year but rising raw material costs, particularly for natural gas and phosphate rock, lowered profit margins. In the second half of the year, customers were reluctant to replenish fertilizer supplies in the face of high interest rates and lack of a clear trend in farm prices. This situation, coupled with reduced international fertilizer trade, led to significant reductions in fertilizer prices.

For the long term, there is a strong underlying need for improved agricultural productivity and therefore a growing demand for fertilizers. In view of the estimated growth of the world market for ammonia and other nitrogen products based on ammonia, the division is looking to new capacity to increase its share of the market. Construction is now beginning on a 1,100 t/d expansion in ammonia capacity at Lambton Works, near Courtright, which will bring total annual capacity up to 730,000 tonnes. It is scheduled to be on stream in 1984 at an estimated cost of \$217 million.

The plant will use process technology developed by ICI, C-I-L's major shareholder, which provides for an improvement in energy efficiency. The new plant will use 25% less natural gas as compared to the existing ammonia plant, which is one of the most efficient in North America.

The company will continue to invest in nitrogen-based chemicals and with the ammonia expansion entering the construction phase, plans are being completed on a proposal to double urea capacity. This expansion would be on stream in 1986 at an estimated cost of \$100 million.

In 1981 a decision was made to merge the division's lawn and garden business with that of Chipman Inc., a wholly-owned supplier of crop protection products and other agricultural products. The lawn and garden products will continue to be sold under the C-I-L brand name.

Principal products:

Chloralkali, sulphur products, fertilizers, explosives, plastic shipping sacks, crop protection products

Customers: Various secondary industries in the U.S.

Locations: Head office at River Rouge (Mich.), sulphuric acid terminals at River Rouge, Cleveland, Chicago (nearing completion), explosives terminal at Plattsburg (N.Y.), sales offices in five states

History: Established in 1975, owned 100%

Employees: 100

C-I-L Chemicals, Inc.

1981 was the first year since incorporation that this subsidiary's growth in overall sales was slowed—mainly due to the general condition of the economy in the United States, which affected sales of explosives and fertilizers, and also due to the shortage of sulphuric acid because of reduced production by smelters. Significant increases were made in sales of chlorine, polyethylene 'Milpac' shipping sacks and in crop protection products.

A \$6.5 million sulphuric acid terminal is now under construction at Chicago and when in operation in 1982 will complete the company's Great Lakes system for distribution of sulphuric acid. The Chicago terminal will be capable of handling ships and barges with loads of up to 8,000 tons. Accessible by rail also, this terminal will receive shipments of 3,600 tons or more by unit train.

Production facilities for sulphuric acid at Sayreville, New Jersey, were purchased early in 1982. The purchase agreement involves a 10-year contract for the supply of sulphuric acid.

Principal products:

Chlorine, caustic soda, chlorinated solvents, hydrochloric acid, sulphuric acid, liquid sulphur dioxide, aluminum sulphate

Customers: Pulp and paper, phosphate-based fertilizers, automotive and steel, mining and metal, soap and a wide range of secondary manufacturers

Locations: Administrative headquarters at Montreal, manufacturing plants at Bécancour, Shawinigan (Que.), Cornwall (Ont.), Dalhousie (N.B.), sulphuric acid terminals at Sorel (Que.), Courtright, Niagara Falls (Ont.), a marine terminal at Spragge (Ont.)

Major raw materials:

Electricity, salt

History: Producing chemicals since 1928

Employees: 830

Principal products:

Carbon bisulphide, carbon tetrachloride, sodium hydrosulphide

Customers: Chemical, textile, leather industries, mining

Locations: Head office at Toronto, manufacturing plant at Cornwall (Ont.), operated by C-I-L

Major raw materials:

Natural gas, sulphur, chlorine, caustic soda

History: Established 1941, 50% owned

Industrial chemicals division

Sales of industrial chemicals division were 18% higher than in 1980, reflecting increases in sales volumes as well as higher selling prices.

Greater volumes of chlorine were sold in the United States market in 1981, permitting increased utilization of C-I-L's chloralkali production capacity and providing opportunity for sales of caustic soda which is co-produced in the process. The company's U.S. subsidiary, C-I-L Chemicals, Inc., made significant progress in broadening its customer base.

The company is optimistic about the future of its chloralkali business, which is strongly based on world scale diaphragm-cell production facilities at Bécancour, Quebec, serving both domestic and U.S. markets.

Demand for sulphur products remained strong throughout the year; however, C-I-L's supplies of sulphuric acid and liquid sulphur dioxide from metallurgical producers were limited due to the depressed state of the mining industry. As a result, there was little volume growth in this business in 1981.

The sale of C-I-L's sulphuric acid production facilities at Copper Cliff, Ontario, to Inco Limited was completed in 1981, and C-I-L now purchases sulphuric acid and liquid sulphur dioxide made by Inco at Copper Cliff under a long term agreement. The company also has supply agreements with other major smelters and is Canada's principal supplier of sulphuric acid. The acid is moved by unit train or ship to a network of major distribution terminals in Canada and the United States, which represent an investment of about \$25 million. Further development of this business is being undertaken through the acquisition of production facilities in the United States.

The company undertook considerable expenditure for environmental improvement in 1981. Costs of cleaning up a site no longer in full operation, at Shawinigan, Quebec, will reach \$4 million, while a similar sum is being spent to reduce emissions at the Fort Saskatchewan, Alberta, site of Inland Chemicals Ltd., a wholly-owned subsidiary.

Cornwall Chemicals Limited

Sales of Cornwall Chemicals Limited were up 19% from the previous year, with increases in both carbon bisulphide and sodium hydrosulphide sales offsetting declines in carbon tetrachloride and ground sulphur. Overall volume was down 12% mainly due to loss of ground sulphur production at Calgary, following closing of those facilities in the last quarter of 1980.

Profits were higher in 1981 mainly due to improvements to the sodium hydrosulphide plant which led to production in 1981 exceeding previous records.

Sales: \$288.6 million, up 23% from 1980

Income from operations: \$7.2 million, down 35% from 1980

Principal products:

Packaged commodity and specialty chemicals

Customers: All industries requiring chemicals in small volumes (about 4,000 customers)

Locations: Administrative headquarters at Toronto, packaging plants at Cornwall (Ont.), Fort Saskatchewan (Alta.), Vancouver (B.C.), manufacturing plants at Shawinigan (Que.), Copper Cliff, Cornwall, Mississauga (Ont.), Faro (Yukon)

Employees: 110

Principal products:

Water treatment and specialty chemicals

Customers: Municipalities, primary and secondary industries

Locations: Head office at Burlington (Ont.), manufacturing plants at Edmonton (Alta.) and Burlington

History: Established 1936, owned 51%

Employees: 290

Principal products:

Crop protection products, lawn and garden products, turf fertilizers, seed treatments

Customers: Agricultural industry, home and garden consumers

Locations: Head office at Stoney Creek (Ont.), plants at Calgary (Alta.), Moose Jaw (Sask.), Laval (Que.), Stoney Creek

History: Established in 1928, became joint venture in 1955, now wholly-owned

Employees: 160

General chemicals division

Sales of general chemicals division increased by 16%, reflecting primarily increases in prices rather than in volumes. While price increases were introduced to help cover rising costs and the effects of inflation, they were not adequate to maintain income levels, because of the strong competitive environment.

As a result of improved service following the establishment of a new packaging plant at Fort Saskatchewan, Alta. in 1980, an increase of market share for packaged chemicals in Western Canada was achieved and the division is now considering another packaging facility in Western Canada to serve that rapidly growing market. Further penetration of the market for urethanes was also achieved.

The division plans to extend its services to the oil and gas industries to include the supply of chemicals used in extraction and upgrading of these resources, possibly through acquisition.

Alchem Inc.

Sales of Alchem Inc. improved by 10% in 1981. Volume was down slightly, due to strikes in the steel industry and pulp and paper mills on the West Coast, and to a drop in activity in oil production and exploration in the Western provinces. Gains in the boiler and cooling water business were made in Ontario, Alberta and British Columbia.

A warehouse expansion and a substantial increase in liquid chemical reactor facilities were completed at the Burlington, Ontario plant in 1981. Additional reactor capacity will be installed in 1982 for the manufacture of high-molecular-weight, water-soluble coagulant polymers. Continued strong growth is forecast for the application of these chemicals in the treatment of industrial effluent and waste recovery, especially in iron and coal mining, shale oil drilling and in polymer floods for enhanced oil recovery.

Chipman Inc.

In 1981 sales of Chipman Inc. rose by 24% as a strong marketing effort increased sales of the agricultural product line all across Canada. The home and garden product line was only marginally ahead of 1980 due to high inventory levels in the distributor chain. Export sales more than doubled over the previous year as rapidly expanding seed treatment sales in the United States were augmented by offshore sales of miscellaneous chemicals.

Earnings were significantly higher than in 1980 as a result of the higher sales and a continued emphasis on reduction of operating expenses. By year-end working capital had been reduced to the lowest level achieved in recent years.

In 1981 the merger of C-I-L's business in blended and resale lawn and garden products and professional turf fertilizer with Chipman's home and garden pesticide business was approved to take effect in January 1982. The combining of these two businesses will result in additional market strength and long term improvements in sales and profits.

Principal products and services:

Chemical plant, processes, equipment, design

Customers: Chemical, pulp and paper, fertilizer, metal smelting industries worldwide

Locations: Administrative headquarters at Vancouver, engineering offices at Vancouver and Toronto, sales offices at Tampa (Florida), Tucson (Arizona), Paris (France)

History: Founded 1970, wholly-owned in 1981, now a division of the company

Employees: 420

Principal services:

Environmental survey and measurement services, and research

Customers: Industry and government

Location: Pointe Claire (Que.)

History: 50% interest 1972, wholly-owned since 1976

Employees: 50

Principal products:

Electroplating and surface finishing supplies

Customers: Automotive, appliance, hardware and construction industries

Location: Head office at Etobicoke (Ont.)

History: Established 1911, now owned 85%

Employees: 200

Principal products and services:

Waste management and disposal, energy-from-waste facilities

Locations: Head office at Mississauga (Ont.), 14 branches throughout Canada and U.S.

History: Established 1973, owned 50%

Employees: 460

Chemetics International Co.

In 1981 Chemetics completed a major portion of a \$100 million backlog of contracts and, with no major contracts being obtained during the year, finished the year with a substantially reduced backlog.

During 1981 many clients postponed projects because of high interest rates and an uncertain economy. In the overseas market the company found it difficult to compete because of the high value of the dollar compared to European currencies and the availability to competitors of subsidized financing.

Contracts completed in 1981 include: construction of the world's largest nitrobenzene plant in Louisiana, relocation from Maine to Quebec of a large sodium chlorate plant built earlier, expansion of a sodium chlorate plant in Saskatchewan, and completion and start-up of a bleach plant in Virginia which uses the MoDo/C-I-L oxygen bleaching process.

Having established a strong base in the sulphuric acid industry through supply of coolers and other proprietary equipment, the company made progress in expanding this business in 1981 to include supply of total plant.

Chemetics purchased the remaining shares of Fromson Heat Transfer Limited in 1981 and it is now wholly-owned. Fromson is the fabricator of Chemetics' sulphuric acid heat exchangers and of exchangers for refineries, chemical plants and electric power generating stations.

Eco-Research Inc.

Eco-Research Inc. continued to grow with sales up 24%. Several contracts with industry and government were obtained in the growing area of environmental toxicology. Industrial hygiene services, which were started in 1980 mainly to meet needs in C-I-L and its subsidiaries, have now become a stand-alone business with external clients representing more than 60% of the volume.

Eco-Research has developed considerable expertise in biotechnology as applied to waste treatment and in flotation processes, which may have several industrial applications.

Hanson Inc.

Sales of Hanson Inc. in 1981 remained at about the same level as in 1980, restricted by reduced activity of customers who supply the automotive industry.

In 1981 Hanson and Volstatic Coatings Limited of the United Kingdom jointly formed a company to supply electrostatic powder coating equipment to the U.S. market. The new associated company is Volstatic Inc. of Kentucky.

Significant export activities included the supply and installation of an entire line of equipment for a zinc-plating plant in Trinidad, and a large order of cast nickel anodes for electroplating in Europe.

Tricil Limited

Tricil's 1981 sales and earnings were up substantially over 1980.

This company operates a fully integrated waste management service for industry and local government from 15 centres in Canada and the United States. In addition to the collection, processing and safe disposal of solid and liquid wastes, Tricil provides design, construction and operation services for solid waste plants which recover energy for resale. One such plant in Hamilton, Ontario, will shortly produce electricity for sale to Ontario Hydro.

Major activities in 1981 included an agreement with the City of Akron and

the Ohio Water Development Authority for the modification and operation of the Akron recycle energy system and a full service agreement with the Prince Edward Island Energy Corporation to build and operate an incineration facility which will convert municipal waste to energy in the form of steam.

A major upgrading program will be undertaken at Tricil's liquid waste treatment facility in Sarnia, Ontario, at an estimated cost of \$6 million.

C-I-L Resources Business Area

Location: Administrative headquarters at Calgary

History: Established 1976 as five-year joint venture, second agreement signed in 1980

Oil and gas exploration

At year-end, C-I-L's estimated gross proven and provable reserves were 253 thousand barrels of crude oil and natural gas liquids and 61 BCF of gas, equivalent to 146 thousand barrels of crude oil and natural gas liquids and 39 BCF of gas, net of payment of royalties. Present worth of these reserves, net of royalties and operating costs but before taxes, discounted at 15% was estimated at \$52 million; discounted at 20% their estimated present worth was \$33 million.

Up to the end of 1981 C-I-L had spent \$17 million for exploration and delineation of resulting oil and gas discoveries. Expenditures on land acquisition, geophysical and exploratory work in 1981 amounted to \$5.1 million compared to \$8.2 million in 1980. The lack of an agreement between the Federal and the Alberta Governments during the first nine months of the year resulted in a general reduction in exploration activity in Canada.

Access to gas markets is a critical issue for many small and medium sized companies. At present, the level of sales is constrained by the National Energy Board and with little short term growth in domestic demand, marketing opportunities are limited. It is possible that the National Energy Board will provide some relief, by modification of its gas surplus tests, but it is unlikely that this will have any significant impact on cash flow during the next two years.

Location: Head office at Calgary

History: Established in 1980 as a wholly-owned subsidiary to purchase, develop and sell about 1200 acres of C-I-L property which had been a manufacturing site in southeast Calgary

Douglasdale Estates Ltd.

Considerable progress towards full development of the property was made in 1981 with access roads and general preparation of the site well underway.

The property, located in southeast Calgary, borders the Bow River for about three miles. A new extension of the Deerfoot Trail, the major north-south artery of the city, crosses the land, and will provide direct access to downtown Calgary when completed in 1982.

A design concept for an industrial and commercial segment was prepared and accepted by the City of Calgary. It is expected that the first significant sales of land will occur in 1983.

High impact welding

Progress was made in 1981 towards the commercial implementation of high impact welding of large diameter gas transmission lines. As soon as approval is obtained from the National Energy Board, work will begin on a five-mile length of a 42-inch pipeline presently under construction.

Among those involved in planning and construction of the Edmonton plant expansion were Geoff Clarke, (left) manager-polymers, plastics division, and Ed Lucht, manager-projects, engineering, seen here in the interior landscaped atrium of C-I-L House.



Ron Metcalfe, process operator, is seen checking the underwater cutter on the main extruder in the new polyethylene expansion at Edmonton.



Sales: \$174.4 million, up 8% from 1980

Income from operations: \$7.7 million, down 44% from 1980

Principal products:

Polyethylene resins and films, bags for industrial packaging and consumer products

Customers: Wide variety of industries including wire and cable, paper coating, agriculture, construction, food processing

Locations: Administrative headquarters at Toronto, manufacturing plants at Edmonton (Alta.), Brampton (Ont.)

Major raw material: Ethylene

History: First producer of polyethylene resin in Canada in 1953 at Edmonton

Employees: 570

Plastics division

Sales of plastics division were up 9% from 1980 with little change in sales volumes. A sharp downturn in activity was experienced in the latter half of the year as the North American polyethylene market softened due to decreased offshore exports from the United States and some decline in domestic markets. The resultant surplus of product on the market caused steep price declines, particularly in commodity products, and prevented the division from covering rising costs of raw materials with price increases.

The company was able to increase its share of the market for plastic films, and to expand its customer base for resins in readiness for sales of expanded production at Edmonton. Exports to the United States of C-I-L's 'Milpac' industrial shipping bags continued to grow.

An expansion of polyethylene capacity was brought on stream at Edmonton in December, below budget and ahead of schedule. This project has brought total capacity for low density polyethylene (LDPE) to 75,000 tonnes per year, reducing unit costs and giving the division greater capacity to serve certain segments of the market.

C-I-L is continuing to develop plans for a second polyethylene expansion at Edmonton of a further 100,000 tonnes per year. While the existing plant produces low density polyethylene, the proposed expansion would produce, through an established process developed by Phillips Petroleum Company, high and medium density polyethylene resins. As some of these resins are not now produced in Canada, this would enable the company to supply additional end-use markets.

Principal products:

Decorative, automotive and industrial finishes

Customers: Do-it-yourself consumers, decorators and architects, automotive and industrial manufacturers, automotive aftermarket

Locations: Head office at Toronto, manufacturing plants: two in Toronto, one in Montreal

Major raw materials: Titanium dioxide, hydro-carbon solvents, epoxy resins, pentaerythritol, phthalic anhydride, vinyl acetate, soya oil

History: Producing finishes since 1919

Employees: 880

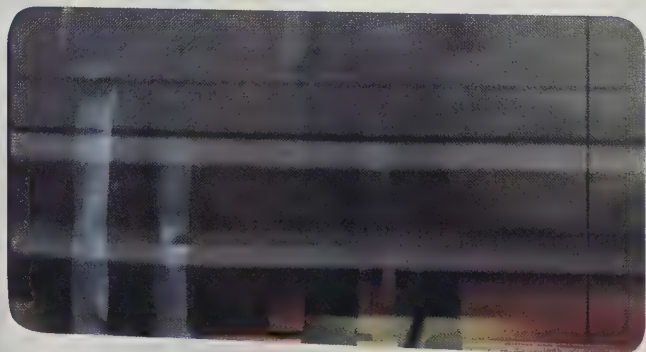
C-I-L Paints Inc.

In 1981 C-I-L Paints Inc. continued its upward trend in sales and profitability. Improved prices in all segments of the business, combined with cost control, contributed to these results.

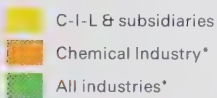
A new computerized system for order entry and warehousing was fully operational in 1981, ensuring more efficient customer service and effective use of working capital.

For some years, the paints industry has been struggling with high increases in raw material costs while competing in a low growth market. C-I-L Paints Inc. is Canada's largest paint company and it maintains the largest paints research facilities in Canada. The company will continue its investment in research and technical programs to ensure high quality product.

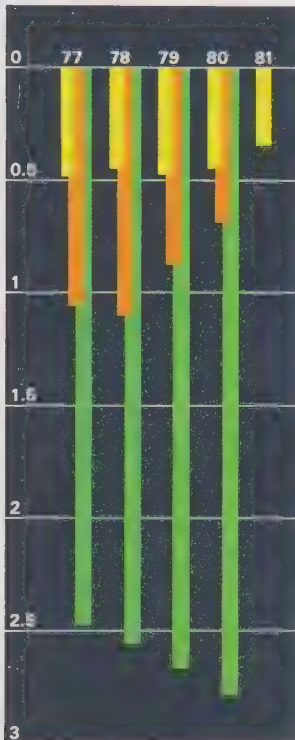
Russ Hall, (left) manager
—corporate safety group,
talks with Bob Dyck,
safety consultant, in one
of the scenic elevators
of C-I-L House.



Safety Performance (Incidence rate)†



*1981 figures not available



†The number of lost time injuries per 200,000 man hours

Consistently better than that of the industry as a whole, C-I-L's safety performance continued to improve in 1981.

Safety

C-I-L's safety performance in 1981 was much improved over 1980, continuing a gratifying trend in reduction of lost-time injuries.

Although the company's record has been considerably better than that of the chemical industry as a whole for some years, it has nevertheless fallen short of company objectives and presents a constant challenge for improvement. In a determined effort to improve performance, C-I-L adopted a new corporate safety action plan in 1980 which included the reorganization and strengthening of its central safety resources unit. Response to these moves and cooperation from C-I-L people has been commendable, as shown by results in the accompanying chart.

Implementation of the new plan, which strongly emphasizes accountability at all levels, has been successful in generating a greater commitment and involvement throughout the organization—a goal for which it was specifically designed. In addition, the expanded services of the safety resource group provided company units with more sophisticated methods of identifying and analyzing problem areas, and improvements in the quality and accuracy of reporting, including new graphic techniques.

It is felt that the heightened awareness and dedication will be the impetus to help the company achieve an unprecedented low level in the number of lost-time injuries in the coming year. The objective for 1982 is an incidence rate of not more than 0.30 per 200,000 man-hours.

Occupational health

A comprehensive review of the company's new occupational health program, initiated in 1980, was completed in 1981. Routine surveillance of the workplace is an integral part of operating procedures, ensuring that the company is complying not only with legislated standards but also with its own high standards. Medical procedures are being modified to ensure that health assessments are related to job characteristics and that employees participate in decisions which could affect their health.

Human resource development

With the company embarking on a period of significant growth, increasing importance is being placed on the planning and development of employee resources. In 1981, a change in organization was made to focus efforts on recruitment, staff placement, personnel training and career development. The newly-expanded human resource development unit will ensure that the company continues to have the number of talented and experienced people essential to its continuing success, in both the short and the long term.

Labor agreements

About 30% of employees are represented by 12 unions in 36 separate bargaining units. Twenty-two collective agreements were open for renegotiation in 1981, including those carried over from the previous year. Fifteen agreements were reached, eight of which were settled prior to the expiry dates of the previous contracts, while seven negotiations scheduled in the last quarter were carried over into 1982. All agreements reached during the year were achieved without a work stoppage.



A three-part hand-quilted piece by Canadian artist Judith Dingle covers 25 feet of wall space along a glassed-in corridor on the executive floor, C-I-L House. Mimi Patsalis, secretary, executive offices, is seen passing the colorful hanging.

Benefits

Several major changes in employee benefits were introduced during the year. In April, pensions-in-payment were adjusted to offset some of the impact of recent high rates of consumer price inflation. The pension increase for most pensioners or their designated survivors was 12%. The vacation plan was improved, as were income maintenance benefits available to employees during periods of short or long term disability.

Directors

During the year R. Haslam resigned from the Board and N. B. Smith, a director of Imperial Chemical Industries PLC, was appointed to fill the vacancy. Mr. Haslam, a deputy chairman of ICI, had been a director since 1979 and his wise counsel and broad knowledge of the international chemical industry had been sources of great strength to the company during a period in which unprecedented expansion was being planned.

Sales

In 1981 sales increased 15% to \$1,149.9 million from the 1980 level of \$1,004.2 million.

■ Sales gains were recorded by all major businesses with the exception of agricultural chemicals which was adversely affected by poor weather conditions and the effect of higher interest costs on its customers.

■ The most significant gains occurred in industrial chemicals, explosives, mining equipment, general chemicals, crop protection chemicals and the sale of technology.

Income from operations

Income from operations rose to \$111.2 million from \$100.7 million in 1980, an increase of 10%, mainly attributable to

■ significantly improved sales and earnings in explosives, industrial chemicals, paints, crop protection chemicals and in mining equipment

■ lower rental costs in the fourth quarter as \$1.5 million of the expense of the new headquarters building is treated as long term interest in accordance with accounting practice for the capitalization of leases

partly offset by

■ reduced sales volumes, primarily in agricultural chemicals

■ higher personnel, raw material, and power costs in all businesses, in particular increased costs of

natural gas and phosphate rock in agricultural chemicals and ethylene costs in plastics which could not be fully recovered in selling prices

■ a substantial reduction in the earnings of Chemetics International due to the slowing of capital investment by its customer industries in North America and to higher costs associated with certain major projects.

Depreciation

Depreciation of \$36.5 million was provided in 1981, a decrease of \$3.3 million from the 1980 provision of \$39.8 million. This decrease is attributable to:

■ the absence of depreciation on Copper Cliff Works sold to Inco Limited in January 1981

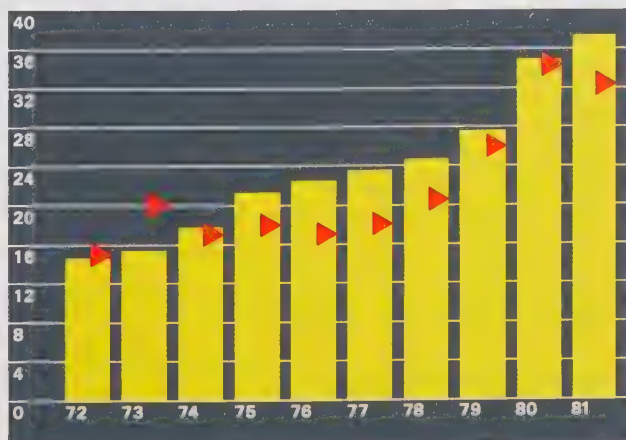
■ the extension of estimated asset lives of plants at Dalhousie, New Brunswick and Beloeil, Quebec and various explosives on-site facilities, in line with the company's policy of annually reviewing the useful lives of all productive assets, taking account of commercial and technological obsolescence as well as physical condition

partly offset by

■ depreciation of new facilities in 1981, principally at Courtright, Ontario; Fort Saskatchewan, Alberta and Brampton, Ontario.

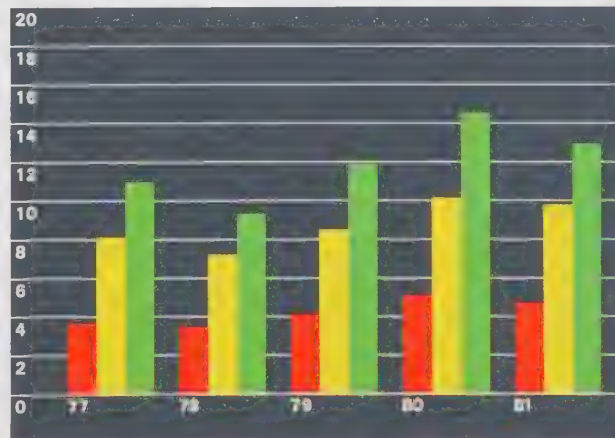
Earnings

Consolidated earnings before extraordinary items totalled \$54.3 million, equivalent to \$4.69 per



Book values and market values
(dollars)

■ Book value per common share
▶ Market value, December 31



Profitability
(percentage)

■ Net earnings as % of sales
■ Net return on total investment
■ Net return on common equity

Raising capital to finance growth is one of the responsibilities of Murray Fitzsimmons, treasurer, seen here with Halina McGregor, finances manager, as they look out over the atrium in C-I-L House. The company marketed an \$80 million debenture issue in February 1981.



common share after provision for dividends on preferred shares, compared to net earnings before extraordinary items of \$51.5 million or \$4.60 per common share for the previous year.

■ The record high interest rates in 1981 resulted in a 32% increase in dividends on the company's floating rate Second Preferred Shares, equivalent to a reduction of \$0.21 in earnings per common share.

■ Net earnings increased less than income from operations due to higher interest costs relating to the increased level of long-term debt.

■ Net return on total investment (before deducting long term debt interest) was 9.7% in 1981 compared to 10.2% in 1980. This decline is primarily a reflection of the high level of new investment which has not yet become fully productive.

■ Net return on common shareholders' equity before extraordinary items but after deducting preferred dividends was 12.9% in 1981 compared to 14.6% in the previous year.

■ An extraordinary expenditure of \$5.2 million after tax was recorded, representing costs associated with the consolidation of the company's executive and administrative offices at its new headquarters building in Toronto, Ontario.

■ Net earnings after extraordinary items were equivalent to \$4.16 per share compared to \$4.53 in 1980.

Dividends

The quarterly dividend on common shares was increased in the third quarter from \$0.40 per share to \$0.45 per share. Total dividends for the year were \$1.70 per share compared to \$1.52 in 1980.

Financing

In April 1981 the company successfully sold \$80 million of 14½% sinking fund debentures at par in the Canadian market. These debentures mature April 15, 1996.

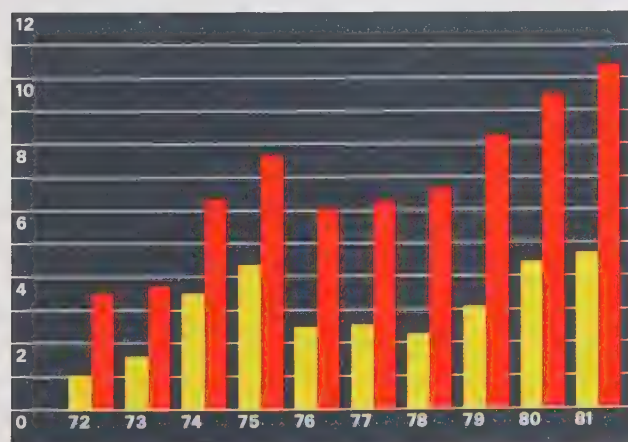
■ The proceeds of the issue are being used to defray the cost of capital expenditures and to finance working capital requirements.

■ The carrying costs of the additional long-term debt and the capitalization of lease costs resulted in an increase of \$9.9 million in long-term debt interest, discount and expense over the previous year.

■ Short-term investment of that part of the proceeds of the issue not actively employed in the business during the year, at rates above the 14½% debenture rate, resulted in interest income of \$2.1 million compared to interest expense of \$3.6 million in 1980.

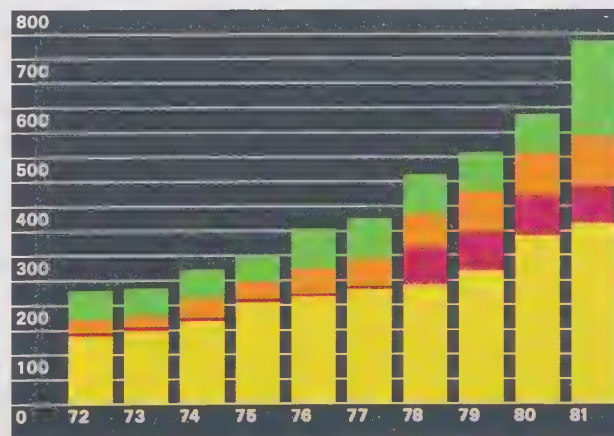
Capital lease

The long-term lease of the new headquarters building in Toronto, Ontario meets the criteria for a



Earnings and Cash Flow per common share (dollars)

■ Earnings
■ Cash flow from operations



Financing of Funds Invested (millions of dollars)

■ Long term debt
■ Deferred taxes and minority interest
■ Preferred shares
■ Common shareholders' equity

capital lease as outlined in the company's accounting policies and has resulted in the recognition of an asset and a corresponding long-term liability of \$34.8 million.

Funds generation and application

Cash resources increased by \$12.3 million from a deficit of \$1.9 million at December 31, 1980 to a surplus of \$10.4 million at December 31, 1981. This increase arose from

- a strong cash flow from operations, up \$9.1 million from 1980 to a total of \$102 million
- the \$80 million proceeds from the debenture issue offset by
- \$94.1 million for fixed assets and long term investments
- \$25.1 million for dividends
- \$20.5 million for regular working capital and \$27 million for income taxes payable.

Capital expenditures

During 1981, expenditures for land, buildings, equipment and long term investments of \$94.1 million were the second highest in company history, and represented an increase of 34% over 1980.

- Major items were the completion of the expansion of the capacity of the low density polyethylene resin plant at Edmonton, Alberta, oil and gas exploration expenditures, and the acquisition of Fromson Heat

Transfer Ltd., a Toronto manufacturer of heat exchangers.

- As at December 31, 1981 the amounts remaining to be spent on projects which have been authorized were estimated at \$276 million, including the recently announced expansion of the ammonia plant at Courtright, Ontario.

Working capital

The \$20.5 million increase in working capital, excluding cash and income tax items, was required to support the greater volume of business activity.

- As a percentage of sales, customer accounts receivable decreased to 12.7% from 13.6% in 1980, and inventories were lowered to 17.3% from 18.5%, reflecting the continuing efforts to monitor and control working capital.
- Income taxes payable were lower by \$27 million at the end of 1981, in part due to the absence of the accrual for the income tax on the capital gain arising from the sale of the Calgary land to Douglasdale Estates Ltd. in 1980, and to increased payment of income tax installments in 1981.

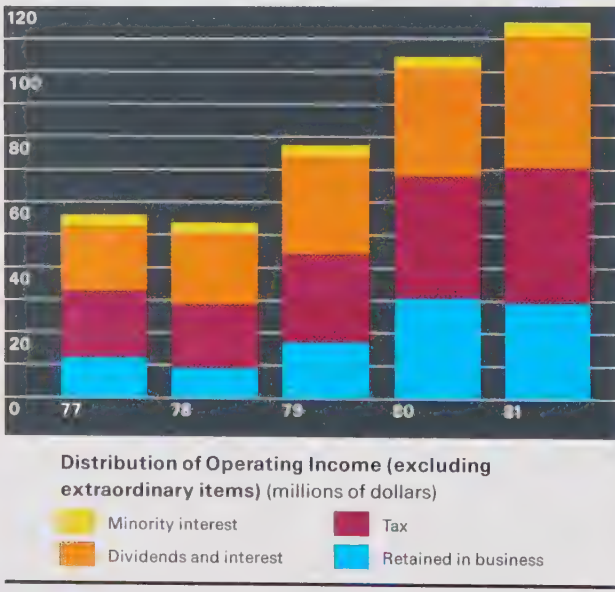
Financing growth

The company expects to authorize capital expenditures in excess of \$700 million during the period 1982 to 1986, of which approximately \$400 million will be for plant expansions and the remainder for various improvements to effect cost savings and greater safety and efficiencies in production. The largest items in the projected capital program are the further expansion of polyethylene capacity at Edmonton, Alberta, a doubling of the urea capacity at Courtright, Ontario and expenditures on oil and gas exploration.

Of the total funds needed for fixed and working capital requirements over this period of accelerated growth, more than 75% is expected to be generated internally. The type, amount and timing of any external financing will be determined by market conditions.

Effects of inflation

The high rate of inflation in Canada has had a significant impact on the operations of Canadian companies and on the traditional methods of measuring financial results. In times of high inflation, the matching of current revenues with costs which include consumption of assets based



on their original costs can result in an overstatement of earnings. Conventional accounting overstates profits available for distribution to shareholders by way of dividends in that it does not take into account the increased cost of maintaining the company's capital base. The current cost accounting system employed by C-I-L attempts to quantify the effect of changing values of assets utilized in the production of goods and services by charging to operations costs that are derived from the current cost of replacing these assets.

■ Supplementary current cost depreciation of \$26.3 million (\$25.0 million in 1980) is based on the cost of replacing productive capacity at current dollars.

■ Cost of sales adjustment of \$16.9 million (\$20.1 million in 1980) provides for the additional cost of replacing goods sold at the date of sale.

■ Net productive monetary items adjustment of \$5 million (\$9.4 million in 1980) is an estimate of the loss of purchasing power on the funds dedicated to accounts receivable less accounts payable.

■ Financing adjustment of \$34.1 million (\$31.6 million in 1980) reflects mainly that portion of the current year's appreciation in the value of the operating assets which is financed by long-term borrowing and term preferred stock financing.

The foregoing adjustments illustrate the effects of inflation on the company's ability to retain sufficient funds to replace or modernize old assets and to finance growth. Current cost accounting adjustments have a significant impact on earnings and therefore it is useful to measure the company's performance by reference to current cost data.

■ Dividends on C-I-L's common stock in 1981 were equivalent to 51.7% of the current cost earnings attributable to common shareholders while in historic terms they represented 36.3% of net earnings before extraordinary items.

■ Pre-tax return on average capital employed in 1981 was 3.7% on an inflation adjusted basis compared to 13.1% in conventional historic accounting terms.

■ The company's income taxes are not adjusted for inflation, resulting in the effective tax rate of 42.7% on historical earnings becoming an effective tax rate of 50% on current cost earnings.

The information in the following table presents the effects of inflation on the company's historical cost earnings. The 1980 comparative financial results have been restated in 1981 average dollars to

account for the change in the general purchasing power of the dollar.

Reconciliation of historical cost earnings to current cost earnings

December 31

	1981		1980 (Restated)	
(millions of dollars)				
Historical cost earnings before interest and income taxes	\$113.6		\$117.4	
Current cost adjustments				
Depreciation	26.3		25.0	
Cost of goods sold	16.9		20.1	
Net productive monetary items	5.0	48.2	9.4	54.5
Current cost earnings		65.4		62.9
Financing adjustment	34.1		31.6	
Less: Interest expense and preferred dividends	22.0	12.1	19.4	12.2
Current cost earnings before income taxes		77.5		75.1
Income taxes	41.1		42.9	
Minority interest	4.1	45.2	3.9	46.8
Current cost earnings attributable to common shareholders		\$32.3*		\$28.3*
Current cost earnings per share (dollars)		\$3.30*		\$2.89*

*Before extraordinary items

The management of the company is responsible for all the information contained in this annual report. The consolidated financial statements have been prepared in accordance with accounting principles generally accepted in Canada, and conform in all material respects with International Accounting Standards for historical costs. Other financial information in this annual report is consistent with that contained in the consolidated financial statements.

Management has established systems of internal control, designed to provide reasonable assurance with respect to the integrity of the financial records and the safeguarding of assets. The systems are supported by the work of the internal audit group, who are responsible for reviewing internal controls and their application on an ongoing basis.

The Board of Directors is responsible for ensuring that management fulfills its responsibilities for financial reporting and internal control. The Board exercises those responsibilities through the Audit Committee of the Board, which is composed of three directors who are not employees of the company. The Audit Committee meets with management, at least three times each year, and with the internal auditors and the external auditors to satisfy itself that the responsibilities are properly discharged. The financial statements contained on pages 27 to 34, including the notes thereto, have been reviewed by the Audit Committee with management and the external auditors, and have been approved by the Board on the recommendation of the Audit Committee.

Touche Ross & Co., Chartered Accountants, the auditors appointed by the shareholders, are responsible for performing an independent examination of the consolidated financial statements in accordance with generally accepted auditing standards and for expressing an opinion on the statements. Their report appears on this page.

The Shareholders**C-I-L Inc.**

We have examined the consolidated statement of financial position of C-I-L Inc. as at December 31, 1981 and the consolidated statements of earnings and retained earnings and changes in financial position for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion, these consolidated financial statements present fairly the financial position of the Corporation as at December 31, 1981 and the results of its operations and the changes in financial position for the year then ended in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.



Chartered Accountants

Toronto, Canada
February 15, 1982

Consolidated Statement of Earnings and Retained Earnings

27

For the year ended December 31

	1981	1980
(Thousands of dollars)		
Sales	\$ 1,149,928	\$ 1,004,195
Costs and expenses		
Operating costs	989,914	853,034
Provision for depreciation	36,482	39,811
Research and development	12,323	10,673
	1,038,719	903,518
Income from operations	111,209	100,677
Long-term debt interest, discount and expense	(17,061)	(7,181)
Other interest income (expense)—net	2,140	(3,626)
Share in earnings of associated corporations	3,775	3,758
Earnings before provision for income taxes	100,063	93,628
Provision for income taxes	41,100	38,100
Earnings including minority interest	58,963	55,528
Minority shareholders' interest in earnings of subsidiary corporations	4,627	4,053
Net earnings before extraordinary item	54,336	51,475
Extraordinary item—net (Note 9)	(5,170)	(729)
Net earnings after extraordinary item	49,166	50,746
Retained earnings at beginning of year	227,232	197,800
Deduct: Dividends		
Preferred	8,445	6,427
Common	16,650	14,887
	25,095	21,314
Retained earnings at end of year	\$ 251,303	\$ 227,232
Earnings per common share, after preferred dividends		
Before extraordinary item	\$4.69	\$4.60
After extraordinary item	\$4.16	\$4.53

At December 31

	1981	1980
(Thousands of dollars)		
Current assets		
Cash and deposits at interest	\$ 18,173	\$ 12,777
Accounts receivable (Note 2)	176,190	148,320
Inventories (Note 3)	198,628	185,356
Prepaid expenses	3,164	2,622
Total	396,155	349,075
Deduct:		
Current liabilities		
Bank loans	7,815	2,254
Loan from affiliated corporation	—	12,463
Accounts payable and accrued liabilities		
Trade and other	155,113	145,282
Affiliated corporations	14,029	7,210
Income taxes payable	—	23,097
Dividends payable	5,292	4,623
Total	182,249	194,929
Working capital	213,906	154,146
Investment in associated corporations	11,047	10,987
Oil and gas ventures (Note 4)	15,324	11,048
Land, buildings and equipment (Note 5)	427,589	343,666
Land held for sale (Note 6)	66,657	65,553
Unamortized debenture discount and expense	2,227	1,014
Total investment	\$ 736,750	\$ 586,414
Financed by:		
Long-term debt (Note 7)	\$ 158,332	\$ 80,449
Capital lease obligations (Note 12)	35,926	466
Deferred income taxes	85,611	72,762
Minority shareholders' interest in subsidiary corporations	13,050	11,114
Preferred shares (Note 8)	77,325	77,325
Common shareholders' equity		
Common shares—9,794,161 issued	73,866	73,866
Revaluation gain on land held for sale—net (Note 6)	41,337	43,200
Retained earnings	251,303	227,232
Total	366,506	344,298
	\$ 736,750	\$ 586,414

On behalf of the Board:

W. J. Mandry
DirectorA. G. S. Griffin
Director

Consolidated Statement of Changes in Financial Position

For the year ended December 31

	1981	1980
(Thousands of dollars)		
Source of funds		
Funds from operations		
Net earnings before extraordinary item	\$ 54,336	\$ 51,475
Depreciation and amortization	36,626	39,904
Deferred income taxes	12,849	2,964
Share in earnings of associated corporations in excess of dividends received	(1,825)	(1,418)
	101,986	92,925
Sale of fixed assets	1,691	972
Sale of shares in associated corporations	565	—
Investment tax credits and grants	5,130	15,430
Minority share in earnings of subsidiary corporations, less dividends paid	1,911	540
Issue of debentures	80,000	—
Increase in capital lease obligations	35,913	—
Net decrease in working capital excluding cash and short-term loans	—	20,949
Total	227,196	130,816
Application of funds		
Dividends	25,095	21,314
Additions to fixed assets	83,290	62,157
Additions to assets related to capital leases	35,913	—
Expenditures on oil and gas ventures	4,474	8,060
Expenditures on land held for sale—net of an expropriation recovery	1,104	21,330
Acquisition of assets in subsidiaries and net additions to investments in associated corporations	6,375	—
Cost of relocation—net of tax	5,170	—
Retirement of long term debt	2,117	364
Debenture issue expenses	1,357	—
Net increase in working capital excluding cash and short-term loans	47,462	—
Other	2,541	366
Total	214,898	113,591
Increase in funds for year	12,298	17,225
Funds on hand less short-term loans (deficiency) January 1	(1,940)	(19,165)
Funds on hand less short-term loans (deficiency) December 31	\$ 10,358	\$ (1,940)

December 31, 1981

1. Accounting policies

Basis of consolidation The accounts include C-I-L Inc. and all its subsidiaries except one foreign subsidiary for which the investment has been written off.

The Corporation accounts for acquisitions on the purchase method. Under this method, the difference between the cost and the fair value of net assets acquired, if any, is added to consolidated fixed assets and amortized over ten years or written off when the value no longer exists. At December 31, 1981, the unamortized amount is \$6,182,000.

Foreign currencies Current assets and liabilities and income accounts for those foreign subsidiaries included in the consolidation are converted into Canadian dollars at exchange rates in effect at the end of the respective reporting periods. Fixed assets, long-term liabilities and shareholders' equity are converted at rates of exchange in effect when first acquired, incurred or issued. The effect of translation is not material.

Inventories Inventories are valued at the lower of average cost and net realizable value. Goods in process and manufactured goods include the cost of raw materials, direct labour and manufacturing overheads.

Investment in associated corporations Investments in associated corporations have been accounted for on the equity method. Under this method, the Corporation's share of the earnings of these associated corporations is included in the consolidated statement of earnings and retained earnings, rather than when realized through dividends. The investments are carried in the consolidated statement of financial position at original cost plus the Corporation's share of earnings from January 1, 1974, less dividends received and less amounts written off where the underlying value of the assets no longer exists.

Fixed assets and depreciation Buildings and equipment are carried at cost less accumulated depreciation. It is the policy to write off the book value of each fixed asset evenly over its estimated remaining life; annual reviews are made of the residual lives of all productive assets, taking account of commercial and technological obsolescence as well as physical condition. Depreciation is not charged on construction in progress.

Research and development All expenditures for research and development, except buildings and major items of equipment used for this purpose, are charged to income as incurred.

Pension costs Most employees are covered by Corporation pension plans. Current contributions and past service funding requirements are charged against income in the year they become payable. Past service costs in trustee plans are being amortized within the requirements of the regulations of the Provinces in which the plans are registered.

Income taxes The tax allocation method of providing for income taxes is followed. Under this method, income taxes currently payable may differ from the total income tax provision for the year as a result of timing differences between recognition of expenditures for accounting purposes and tax purposes. Such differences largely arise from claiming maximum capital cost allowances for tax purposes, which are higher than depreciation charged for determining reported income and investment tax credits which are credited to fixed assets and amortized over a ten year period. The tax effect of these timing differences is reflected in the accounts as deferred income taxes.

Oil and gas ventures Expenditures for oil and gas exploration are accounted for by the successful efforts method. Under this method the initial acquisition costs for oil and gas properties together with the costs of drilling successful wells are capitalized. Exploration expenditures including geological and geophysical surveys, administration and unsuccessful drilling and associated acquisition costs are charged to expense.

Leases Leases have been classified as capital or operating leases. A lease which transfers substantially all of the benefits and risks incidental to the ownership of property is accounted for as if it were an acquisition of an asset and the incurrence of an obligation at the inception of the lease. All other leases are accounted for as operating leases wherein rental payments are expensed as incurred. Assets recorded under capital leases are amortized on a straight-line basis over their useful lives.

2. Accounts receivable

December 31

	1981	1980
(Thousands of dollars)		
Customers	\$145,944	\$136,392
Affiliated corporations	2,349	698
Associated corporations	7,021	4,277
Income taxes recoverable	3,895	—
Other	16,981	6,953
	\$176,190	\$148,320

3. Inventories

December 31

	1981	1980
(Thousands of dollars)		
Raw materials	\$ 59,107	\$ 47,575
Goods in process and finished goods	134,944	134,021
Stores and supplies	4,577	3,760
	\$198,628	\$185,356

4. Oil and gas ventures

December 31

	1981	1980
(Thousands of dollars)		
Cost	\$ 15,624	\$ 11,150
Less: Accumulated depletion	300	102
	\$ 15,324	\$ 11,048

5. Land, buildings and equipment

December 31

	1981	1980
(Thousands of dollars)		
Buildings and equipment	\$680,369	\$619,611
Less: Accumulated depreciation	323,655	323,161
	356,714	296,450
Construction in progress	19,863	34,444
Land	14,908	12,347
	391,485	343,241
Capital leases		
Land, buildings and equipment	36,461	460
Less: Accumulated depreciation	357	35
	36,104	425
	\$427,589	\$343,666

It is estimated that expenditures of \$276,300,000 will be required to complete projects authorized prior to December 31, 1981.

6. Land held for sale

On March 15, 1980, the Corporation received an appraisal by Klaasen Eagleson Associates Limited of the market valuation for the former explosives site in Calgary, Alberta. Based on the appraisal, the land was sold for \$65,000,000 to a subsidiary corporation, Douglasdale Estates Ltd. The land is reflected at the transaction price plus capitalized development expenditures. After providing for capital gains tax on the sale to Douglasdale Estates Ltd., and the estimated costs of preparation of the site for residential, commercial and industrial development, the Corporation set aside a net revaluation gain of \$41,337,000, (1980—\$43,200,000) which will be recognized as income as the property is sold.

7. Long-term debt

December 31

	1981	1980
(Thousands of dollars)		
5½% debentures due December 1, 1984	\$ 30,000	\$ 30,000
10½% sinking fund debentures due July 15, 1996	48,000	50,000
14½% sinking fund debentures, Series 2 due April 15, 1996	80,000	—
Other (net of current portion, \$117,000; 1980—\$324,000)	332	449
	\$158,332	\$ 80,449

Sinking fund provisions of the 10½% debentures require the Corporation to make payments to the trustee sufficient to retire \$2,000,000 principal amount on July 15 in each of the years 1982 to 1995 inclusive. During the year, the Corporation redeemed the \$2,000,000 principal amount due July 15, 1982. The sinking fund provisions of the 14½% Series 2 debentures require the Corporation to make payments to the trustee sufficient to retire \$7,000,000 principal amount on April 15, in each of the years 1986 to 1995 inclusive.

8. Preferred shares

December 31

	Shares	1981	1980
(Thousands of dollars)			
First preferred – cumulative dividend of \$3.75 per annum	46,500	\$ 2,325	\$ 2,325
Second preferred – Authorized	8,000,000		
Issued – Series A cumulative floating dividend	3,000,000	75,000	75,000
		\$ 77,325	\$ 77,325

The cumulative dividend on the floating rate Second Preferred Shares, Series A, is payable quarterly at a rate equal to one half of the sum of the average prime lending rate of four leading Canadian banks plus 2½% per annum. The shares are redeemable at the option of the Corporation and will be retractable at the option of the holder on February 21, 1988.

9. Extraordinary item

The extraordinary item represents costs of \$9,570,000 (less income taxes of \$4,400,000) associated with the consolidation of the Corporation's executive and administrative offices at the new headquarters building in Toronto, Ontario.

10. Pension plan

The contributions made by the Corporations and their employees are deposited in an irrevocable trust fund in accordance with the terms of the plan. There remains an unfunded liability at December 31, 1981 with respect to past services of \$24,315,000 based on an actuarial valuation received in 1979. This amount will be paid in instalments, in accordance with the regulations of the Provinces in which the plans are registered.

11. Contingent liabilities

Sono-Hemijski Kombinat Soda-So of Tuzla, Yugoslavia has instituted, by a preliminary request dated August 10, 1980, arbitration proceedings in the International Chamber of Commerce Court of Arbitration in Paris, France, against Chemetics International Ltd. (Chemetics) arising out of contracts between the parties dated June 24, 1972, for the design of a chloralkali plant and a calcium hypochlorite plant. Sono-Hemijski Kombinat Soda-So claims the sum of \$7,084,069 with 8% interest from July 1, 1977 and an unspecified amount of damages. The Corporation's liability under the contracts should not exceed \$560,000, provided the contracts, including the clause limiting Chemetics' liability, are enforceable. An answer and counterclaim for \$2,212,800 has been filed as well as a claim for an unspecified amount for violation of the secrecy agreement concerning proprietary patented technology of Chemetics. The three arbitrators have been appointed and they and the parties will shortly be visiting the site of these plants in Yugoslavia.

On February 6, 1981, Trace-X Chemical and John F. Arens filed a complaint in the United States District Court for the Western District of Arkansas, Fayetteville Division against Canadian Industries Ltd. (sic), C.I.L. Ammunition Inc., I.C.I. America, Inc. (sic) and Imperial Chemical Industries Ltd. alleging violation of United States antitrust laws in connection with the sale of TNT in the United States. Damages of U.S. \$23,000,000 before trebling, are claimed by the plaintiffs. Motions to dismiss this complaint on the basis of a lack of personal jurisdiction against Canadian Industries Ltd., Imperial Chemical Industries Ltd. and C.I.L. Ammunition Inc. and on the basis of failure to state a cause of action against I.C.I. America, Inc. and Imperial Chemical Industries Ltd. were filed and argued. Judgment has been rendered recently denying those motions on behalf of Canadian Industries Ltd. and C.I.L. Ammunition Inc. but granting them on behalf of I.C.I. America, Inc. and Imperial Chemical Industries Ltd. No other proceedings have occurred in this action. On the basis of its preliminary factual review, the Corporation is of the opinion that it has valid and strong defences of this action.

In addition, the Corporation had contingent liabilities as at December 31, 1981 of \$546,000 with respect to guarantees on behalf of other corporations, and other contingent liabilities of \$1,888,000.

12. Lease commitments

The future minimum lease payments under the capital and operating leases of the Corporation, together with the present value of the net minimum lease payments on the capital leases, are as follows:

	Capital Leases	Operating Leases
(Thousands of dollars)		
1982	\$ 6,256	\$ 12,593
1983	6,234	11,607
1984	6,199	10,563
1985	5,760	8,790
1986	5,760	7,322
Subsequent to 1986	175,134	26,043
Total minimum lease payments	205,343	\$ 76,918
Less: Amount representing interest	169,105	
Present value of net minimum lease payments	36,238	
Less: Current portion of lease payments	312	
Long term portion of capital lease obligations	\$ 35,926	

The major portion of the capital lease payments, with interest at 17%, is for the administrative office complex in Toronto, completed in 1981. The operating lease payments are mainly for transportation equipment.

13. Investment tax credits

At December 31, 1981 the Corporation had investment tax credits of approximately \$3,100,000 available to reduce future income taxes otherwise payable.

14. Directors' and officers' remuneration

Remuneration of directors and senior officers of the Corporation during the year was as follows:

	1981 Number	1981 Amount	1980 Number	1980 Amount
As directors	12	\$ 114,000	12	\$ 104,000
As officers	20	2,473,000	19	2,009,000

15. Segmented information

The Board of Directors has determined the following business segments:

(a) Agricultural and industrial chemicals The principal manufactured or resold products are: anhydrous ammonia, mixed fertilizers, ammonium phosphates, ammonium nitrates, nitrogen solutions, urea, caustic soda, chlorine, chlorinated solvents, sulphuric acid and aluminum sulphate. The markets served by this segment include the fertilizer market, the pulp and paper industry and chemical and fertilizer manufacturing industries.

(b) Explosives and mining equipment The principal manufactured products are: commercial explosives, blasting accessories, ammonium nitrate and trackless underground mining equipment. This segment primarily serves the mining and construction industries.

(c) Paints and plastics The principal manufactured products are: paints, including a wide range of decorative, automotive and general industrial finishes, and polyethylene resin, films, bags and shipping sacks. Polyethylene resins are used for food packaging films, insulation for wire and cable, paper coatings and pipe and molding applications. Polyethylene films are primarily used for construction and agricultural uses.

(d) Specialty chemicals and services The principal manufactured or resold products are: packaged chemicals, water treatment and process chemicals, supplies and equipment for metal finishing and crop protection products. This segment also includes the sale of chemical process technology in the form of fully engineered systems, the oil and gas joint venture program and the environmental improvement business area.

15. Segmented information *continued*

For the year ended December 31

	Agricultural and Industrial Chemicals		Explosives and Mining Equipment		Paints and Plastics		Specialty Chemicals and Services	
	1981	1980	1981	1980	1981	1980	1981	1980
(Millions of dollars)								
Sales to customers	\$ 376.3	\$ 348.3	\$ 319.3	\$ 270.2	\$ 171.3	\$ 158.5	\$ 283.0	\$ 227.2
Inter segment sales	16.5	15.7	1.9	3.0	3.1	3.6	5.6	6.9
Total revenue	\$ 392.8	\$ 364.0	\$ 321.2	\$ 273.2	\$ 174.4	\$ 162.1	\$ 288.6	\$ 234.1
Segment operating profit	\$ 42.0	\$ 41.1	\$ 52.1	\$ 36.2	\$ 7.7	\$ 13.7	\$ 7.2	\$ 11.0
Identifiable assets—net	\$ 246.7	\$ 238.8	\$ 204.5	\$ 186.8	\$ 94.9	\$ 69.3	\$ 68.4	\$ 65.4
Capital expenditures	\$ 25.6	\$ 18.5	\$ 21.2	\$ 12.2	\$ 22.0	\$ 23.9	\$ 15.5	\$ 13.0
Depreciation	\$ 16.8	\$ 19.0	\$ 11.5	\$ 14.2	\$ 1.4	\$ 1.1	\$ 3.8	\$ 2.6

	Eliminations		Consolidated	
	1981	1980	1981	1980
(Millions of dollars)				
Sales to customers			\$ 1,149.9	\$ 1,004.2
Inter segment sales	\$(27.1)	\$(29.2)	—	—
Total revenue	\$(27.1)	\$(29.2)	\$ 1,149.9	\$ 1,004.2
Segment operating profit			\$ 109.0	\$ 102.0
Miscellaneous income (expense)—net			2.2	(1.3)
Total income from operations			111.2	100.7
Interest income (expense)—net			2.1	(3.6)
Share in earnings of associated corporations			3.8	3.8
Long-term debt interest, discount and expense			(17.1)	(7.2)
Provision for income taxes			(41.1)	(38.1)
Minority interest			(4.6)	(4.1)
Net earnings before extraordinary items			\$ 54.3	\$ 51.5
Identifiable assets—net			\$ 614.5	\$ 560.3
Corporate assets—net			122.3	26.1
Total investment			\$ 736.8	\$ 586.4

1. Inter segment sales are accounted for at prices comparable to open market prices for similar products and services.

2. Export sales amounted to \$168.1 million (1980—\$144.8 million).

	1981	1980	1979	1978	1977	1976	1975	1974	1973	1972
(Millions of dollars)										
Earnings statement items										
Sales	1,149.9	1,004.2	880.0	746.9	667.8	613.9	594.9	517.6	383.3	324.5
Depreciation	36.5	39.8	31.9	30.7	27.2	25.4	26.7	21.8	18.6	17.6
Income from operations	111.2	100.7	74.9	51.9	54.6	50.4	86.6	65.6	33.0	23.9
Long-term debt interest, discount and expense	17.1	7.2	7.2	7.2	7.8	5.2	2.9	3.1	3.2	3.4
Provision for income taxes	41.1	38.1	26.8	19.5	21.1	20.5	39.5	28.9	14.9	10.1
Net earnings*	54.3	51.5	36.3	26.4	24.9	24.4	42.6	34.8	16.0	10.5
Net earnings* attributable to common shareholders	45.9	45.0	30.5	22.3	24.7	24.2	42.5	34.7	15.8	10.4
(Millions of dollars)										
Statement of financial position										
Working capital	213.9	154.1	157.9	151.0	128.4	136.0	120.6	110.0	107.3	111.2
Fixed assets**	730.8	677.6	631.9	566.2	476.6	420.4	366.5	316.4	280.0	262.3
Accumulated depreciation	324.0	323.3	290.1	271.7	249.4	224.5	206.1	183.6	164.5	148.6
Long-term debt**	158.3	80.4	81.3	80.5	80.7	80.5	51.1	51.7	55.5	63.1
Preferred shares	77.3	77.3	77.3	77.3	2.3	2.3	2.3	2.3	2.3	2.3
Common shareholders' equity	366.5	344.3	271.7	242.1	232.2	220.1	208.0	173.7	150.3	142.8
(Millions of dollars)										
Cash flow items										
Funds from operations	102.0	92.9	80.5	65.4	61.2	58.9	75.4	61.4	36.5	34.4
Additions to fixed assets**	87.8	70.2	84.4	97.6	58.5	62.1	54.3	47.6	21.5	12.8
Dividends	25.1	21.3	18.8	16.6	12.7	12.3	11.9	11.4	8.5	6.1
(Dollars per share)										
Per common share										
Earnings*	4.69	4.60	3.11	2.28	2.52	2.47	4.34	3.54	1.61	1.06
Dividends	1.70	1.52	1.32	1.28	1.28	1.24	1.20	1.15	0.85	0.60
Book value	37.42	35.15	27.74	24.72	23.71	22.47	21.24	17.74	15.35	14.58
Cash flow	10.41	9.49	8.21	6.68	6.25	6.02	7.69	6.26	3.73	3.51
Ratios										
Net return* on sales	4.7%	5.1%	4.1%	3.5%	3.7%	4.0%	7.2%	6.7%	4.2%	3.2%
Net return* on average investment	9.7%	10.2%	8.3%	7.3%	8.1%	8.4%	15.9%	15.1%	7.7%	5.5%
Net return* on average common shareholders' equity	12.9%	14.6%	11.9%	9.4%	10.9%	11.3%	22.2%	21.4%	10.8%	7.4%
Dividend payout	46.2%	41.4%	51.7%	63.0%	51.1%	50.6%	28.0%	32.8%	53.3%	57.4%
Long-term debt/equity ratio	30:70	16:84	19:81	20:80	26:74	30:70	20:80	23:77	28:72	30:70
Current ratio	2.2:1	1.8:1	2.0:1	2.2:1	2.1:1	2.4:1	2.3:1	2.3:1	2.5:1	4.0:1

*Before extraordinary items

**Excluding capital leases

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Toronto, Ontario

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Senior Vice-President,
C-I-L Inc.,
Willowdale, Ontario

F. S. Burbidge

Chairman and
Chief Executive Officer,
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F. Whiteley

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Imperial Chemical
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Division

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Division

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Vice-President and
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